UNITED STATES PATENT AND TRADEMARK OFFICE

# CERTIFICATE OF CORRECTION



PATENT NO. : 7,647,184 B2
APPLICATION NO. : 10/022249
DATED : January 12, 2010
INVENTOR(S) : Vega et al.

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

**IN THE CLAIMS:**

Please replace Claim 9 with the following amended Claim:

Column 78, lines 23-26

9. The method of claim 1, wherein the pre-selected amino acid is selected from among Arg (R), Asn (N), Asp (D), Cys (C), Gln (Q), Glu (E), His (H), Ile (I), Leu (L), Lys (K), Met (M), Phe (F), Thr (T), Trp (W), Tyr (Y) and Val (V).

Please replace Claim 15 with the following amended Claim:

Column 78, lines 59-65

15. The process of claim 1, wherein:
in step (b) the nucleic acid molecules comprise viral vectors, and the method further comprises assessing the titer of the viral vectors in each set of cells; and
the predetermined property or an activity is selected from among a chemical, a physical and a biological property of the target protein.

Please replace Claim 19 with the following amended Claim:

Column 79, line 33 to Column 80, line 4

19. The process of claim 18, wherein the Hill analysis, comprises:
(a) preparing a sample of each nucleic acid molecule or a plasmid or vector that comprises each nucleic acid molecule (biological agent), wherein each sample is obtained by a serial dilution of the molecules or vector or plasmid at a concentration R1;

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Signed and Sealed this
Eighteenth Day of January, 2011

David J. Kappos
*Director of the United States Patent and Trademark Office*

(b) incubating each sample of the dilution obtained in (a) with the host cells (target cells) at a constant concentration R2;

(c) determining a P product from the reaction R1 + R2, at a t moment, in each sample; and

(d) preparing a theoretical curve H from the experimental points R1 and P, for each biological agent by iterative approximation of parameters of the reaction R1 + R2 → P, at the t moment, in accordance with the equation:

$$P = P_{max}(\pi R1)^r/(\kappa + (\pi R1)^r) \qquad r=1,\ldots.,n \quad (2)$$

in which:

R1 represents the biological agent concentration in a sample from the scale;

R2 is concentration of target cells (in vitro or in vivo)

P (output) represents the product from the reaction R1 + R2 at a t moment;

$P_{max}$ represents the reaction maximal capacity;

κ represents, at a constant R2 concentration, the biological system for responding to the biological agent (resistance constant R2);

r represents a dependent coefficient of R1 and corresponds to the Hill coefficient; and

π represents the intrinsic power of the R1 biological agent to induce a response in the biological system (P production at the t moment); and

(e) sorting the κ and π values obtained in (d) for each protein encoded by the nucleic acid molecules or plasmids or vectors and the cells, and then ranking according to the values thereof.

Please replace Claim 26 with the following amended Claim:
Column 82, lines 4-8

26. The method of claim 22, wherein the pre-selected amino acid is selected from among Arg (R), Asn (N), Asp (D), Cys (C), Gln (Q), Glu (E), His (H), Ile (I), Leu (L), Lys (K), Met (M), Phe (F), Thr (T), Trp (W), Tyr (Y) and Val (V).